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Vol. 68, No. 17

Arnold AFB, Tenn.

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September 7, 2021

704th Test Group, Det. 1 prepares for next-gen radar cross section testing

By Jill Pickett
AEDC Public Affairs

WHITE SANDS MISSILE RANGE, N.M. – The ever-improving technology of the U.S. military requires the test and evaluation capabilities of the Air Force Test Center organizations to keep pace to prove the superiority of the systems and give confidence to the warfighters using them.

At the National Radar Cross Section (RCS) Test Facility (NRTF) at White Sands Missile Range, N.M., the 704th Test Group, Detachment 1 of the Arnold Engineering Development Complex has improved their turntable mounting capability to enable testing of next-generation platforms with reduced or low RCS signatures. This improvement was achieved through the implementation of a new foam for supporting test articles.

The lower the RCS signature of a platform, such as a plane, missile or drone, the harder the platform is to detect with radar. Radar transmits radio frequency (RF) energy, then measures how much energy is directed back at the transmitter from obstacles in the path.



A T-38C is mounted to the large turntable for radar cross section testing using supports made from the previous type of foam used by the 704th Test Group, Detachment 1 at the National Radar Cross Section Test Facility at White Sands Missile Range in New Mexico in 2017. A new, sturdier type of foam now being used by the Detachment will allow the supports to be much smaller and cause less contamination in the data. (U.S. Air Force photo)

See 704TH, page 3

Arnold AFB Commissary launches CLICK2GO service



Casey Cooper, grocery manager for the Arnold Air Force Base Commissary, loads groceries into a vehicle while fulfilling an order in the Commissary CLICK2GO system, Aug. 11 at Arnold AFB. During the selected pick-up timeframe, customers park in designated spots in the commissary parking lot and call to notify store employees they have arrived. An employee brings the order out and loads it into the customer's vehicle. (U.S. Air Force photo by Jill Pickett) (This image has been altered by obscuring a license plate for privacy.)

By Jill Pickett
AEDC Public Affairs

A service that has become prevalent among grocery retailers is now available to Arnold Air Force Base Commissary patrons – online ordering with curbside delivery.

The local commissary launched Commissary CLICK2GO in early August with a ribbon cutting ceremony at the store. All authorized commissary patrons can now use the service to shop. All items available in-store are also available online 24/7.

“It feels great to officially start the

program here at Arnold, especially after seeing all the training my team has taken,” said Brandon Jelson, store director. “They are so talented and hardworking; we could not do it without them.”

The Defense Commissary Agency initially began the service with an 11-store rollout over the past two years and is now expanding to all stateside commissaries by the end of the year.

CLICK2GO allows patrons to place their orders online using a computer or mobile device, choose a pickup time and then pay for their

order. At their selected pickup time, they will park in designated parking spaces and commissary employees will bring their order to their vehicle. CLICK2GO users will have access to enhanced production information, recipe features, and featured sales and promotions. Customers looking for more information on the CLICK2GO service can go to www.commissaries.com.

“The two biggest benefits to the patrons at Arnold AFB Commissary are convenience and con-

See COMMISSARY, page 3

AFTC 2021 SE&TM Outstanding Performers

By Air Force Test Center Public Affairs

EDWARDS AIR FORCE BASE, Calif.

– Air Force Test Center congratulates the AFTC-level Science, Engineering and Technical Management annual award winners. The SE&TM awards provide annual recognition for exemplary contributions and dedication to the SE&TM community; accomplishments are affirmed through 19 awards in two categories- SE&TM and Sponsored Awards.

“The exemplary contributions and dedication of our Airmen across the Test Enterprise to the Science, Engineering & Technical Management community is critical to our mission and inspiring. Congratulations to the annual SE&TM award winners,” said Maj. Gen. Evan Dertien, Air Force Test Center commander.

The following Airmen and teams went on to compete at the Air Force Materiel Command level. AFMC winners were announced on Aug. 31.

- **Junior Military Scientist/Engineer**
Capt. Nathaniel Catt
96th Test Wing
Eglin Air Force Base, Florida
- **Mid-Career Military Scientist/Engineer**
Capt. Kyle Hathaway
412th Test Wing, Edwards AFB, Calif.
- **Junior Civilian Scientist/Engineer**
Rebecca Mitchell
412th Test Wing
Edwards AFB, Calif.
- **Mid-Career Civilian Scientist/Engineer**
Melissa Tate
AEDC
Arnold Air Force Base, Tennessee
- **Senior Civilian Scientist/Engineer**
Jose Diaz
AEDC
Arnold AFB, Tennessee

See SE&TM, page 3

In This Issue....

AEDC commander discusses potential changes, addresses rumors arising from continuing pandemic

...Page 2

Cop Corner: 20th anniversary of the 9/11 attacks

...Page 5

CORONAVIRUS STANDARD PRECAUTIONS

-  Clean your hands often with soap and water and/or hand sanitizer.
-  Avoid touching your eyes, nose and mouth with unwashed hands.
-  Avoid close contact, putting distance between yourself and other people.
-  Stay home if you're sick, except to get medical care.
-  Cover coughs and sneezes.
-  Wear a face mask if you are sick.
-  Clean and disinfect frequently touched surfaces.

For more information about the Arnold AFB response to the pandemic, including the gate entry screening process, visit arnold.af.mil/coronavirus.

704TH from page 1

“If a test article is well designed or treated, the amount of RF energy that is returned back to the radar has a lower decibel intensity, and is harder to detect,” said Maj. Nathan Lesman, assistant director of Operations for the Detachment.

While this is good during operational use, lower RCS signatures present challenges during testing due to interference from test facility structures and other

background sources.

Test articles are elevated on a turntable using foam columns. Foam is RF transparent at low RF ranges, which means it causes little interference in the collected data. The foam becomes more visible to the radar at the RF ranges needed to test low RCS signature test articles.

“We design our foam columns to have the least RF interference possible, but one of

our constraints is the need to adequately support the test article,” Lesman said.

The Detachment has tested items as large as fighter jets using foam column supports.

“One aspect that can contribute to a small [RF] return is to make an object physically small,” Lesman said. “If we can use sturdier foam columns, then we can use smaller foam columns, which helps us better isolate test article returns from

foam column returns.”

The sturdier foam hasn’t been used up until now because of the health risks posed by shaping it with a hot wire, the method previously used by the Detachment. These risks aren’t present when cutting the standard foam with a hot wire. New tooling for shaping foam is allowing the Detachment to take advantage of the sturdier material and deliver even higher quality data to customers.

“We have powerful tools for processing contaminants out of collected RCS data, but as RCS signatures get lower we have a need to collect less contaminated data natively,” Lesman said. “Lowering the RCS signature of our foam columns, a potentially large contaminant, enables us to provide our range users with highly accurate data regardless of the method used to mount a test article on our range.”

COMMISSARY from page 1



Col. Jeffrey Geraghty, left, commander of Arnold Engineering Development Complex headquartered at Arnold Air Force Base, and Brandon Jelison, store director of the Arnold AFB Commissary, cut the ribbon during a ceremony to celebrate the launch of the CLICK2GO online ordering and curbside pick-up service at the commissary, Aug. 3. Also pictured, holding the ribbon, is Casey Cooper, grocery manager for the commissary. (U.S. Air Force photo by Jill Pickett)

tactless shopping,” Jelison said. “You can now ‘shop’ from home.”

The launch of the service at Arnold AFB comes as the COVID-19 pandemic is surging once again in the U.S. The Arnold AFB Commissary has remained open throughout the pandemic and used risk mitigation measures to provide as safe a shopping experience as possible. The CLICK2GO service will give patrons another option to access their commissary benefits with minimal contact.

“I think demand for the commissary stayed the same throughout the pandemic,” Jelison said. “However, the importance of having a contactless shopping experience increases in parallel to the spread of COVID.”

Visit AEDC media soon for a video providing more information about the CLICK2GO service.



Casey Cooper, grocery manager for the Arnold Air Force Base Commissary, places frozen food items in a designated location in the store’s freezer while fulfilling an order in the Commissary CLICK2GO system, Aug. 11 at Arnold AFB. After items for an order are pulled, they are bagged, the bags labeled, and then placed in three separate areas depending on what temperature they need to be stored – ambient room temperature, refrigerated and below freezing. (U.S. Air Force photo by Jill Pickett)

SE&TM from page 1

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|---|---|--|--|--|
| <ul style="list-style-type: none">• Technical Management
Michael McGuire
AEDC, Arnold AFB,
Tennessee• Technical Management Team
B-52 Developmental Test Team
412th Test Wing
Edwards AFB, Calif.
Team members: Kerry R. Young, Prince A. Tucker, Jose A. Rosado, Kevin A. Thorn, Michael T. Cesena, Kenneth J. Fuller, Bobbi C. Zapka, William G. Statom, James E. Pizinger, Chaz L. Guerrero, Lt. Col. Sean O. Siddiqui, Maj. Erik M. Hillard, Maj. Jonathan M. Aronoff, Maj. Samuel E. Wright, Maj. Alex B. Kroll, Maj. Darren R. Montes, Maj. | <p>David R. Meyn, Maj. Brian N. Heemstra, Capt. Francis X. Loiacono, Capt. Kristian E. Warner, Capt. Jonathan S. Geerts, Capt. Thomas P. Hulsey, Zachary L. Davis, Benjamin D. Stolte, Jeromy D. Smith, Jack D. Garret, Brian A. Tom, Douglas B. Sabo, Merrice Spencer, James T. Lester</p> <ul style="list-style-type: none">• Engineering Technician
Russell Loos
AEDC
Arnold AFB, Tennessee• Career Achievement
Collin Broughton
AEDC
Arnold AFB, Tennessee• Support
Clarence Mitchell
AEDC | <p>Arnold AFB, Tennessee</p> <ul style="list-style-type: none">• General James Ferguson Engineering Award
Maj. Nathan Lesman
AEDC
Arnold AFB, Tennessee• General Bernard P. Randolph Engineering Team Award
Cyber Test Team
96th Test Wing
Eglin Air Force Base, Florida
Team members: James C. Hobin, Nicole Potter, Steve Ferreira, Eric Rudolph, S. Aaron Topp, Corey Cook, Steven A. Newton, Christopher Lovewell, Kevin McGowan• General Lester L. Lyles Award | <p>T-7 Distributed Test Operations Team
412th Test Wing
Edwards AFB, Calif.
Team members: Rebecca Mitchell, Scott Davis , Anthony Valdespino, Sands Sprague, Pamela Hoge, Chris Crawford, Fridosh Choksey, Maj. Charles Brantigan, James McCorduck, Pete Bouras, Capt Jennifer Yeom, Maj. Corey Struck, Adam Holt, Nestor Franco, Christian Davis, Michael Norville, Tyler Sanders, Jacob Albright, Darryl Watkins, James Shenberger, Adam Eichenhofer, MSgt. Kyle Quigley, Maj. Khoa Tang</p> <ul style="list-style-type: none">• Captain Roland R. Obenland Engineering | <p>Memorial Award
Lt. David LaBuda
AEDC
Arnold AFB, Tennessee</p> <ul style="list-style-type: none">• Outstanding Scientist Team Award
Aerodynamic Performance Test and Evaluation Team
AEDC
Arnold AFB, Tennessee
Team members: Kristyn Nivins, Adam Harris, Ben Howell, Chris Curnes, David Smith, Emily Tranberg, Isaiah Salinas, Jacob Beard, James Reiner, John Hopf, Lt. Col. John McShane, Josh Webb, Marvin Sellers, Melissa Minter, Michael Nelson, Nathan Payne, Paul Stellato, Ryan Brooks, Ryan Gill, Scott Meredith, Wesley Cobb, Maj. Wesley Anderson, William Schuman |
|---|---|--|--|--|

Team uses game to match problems with solutions

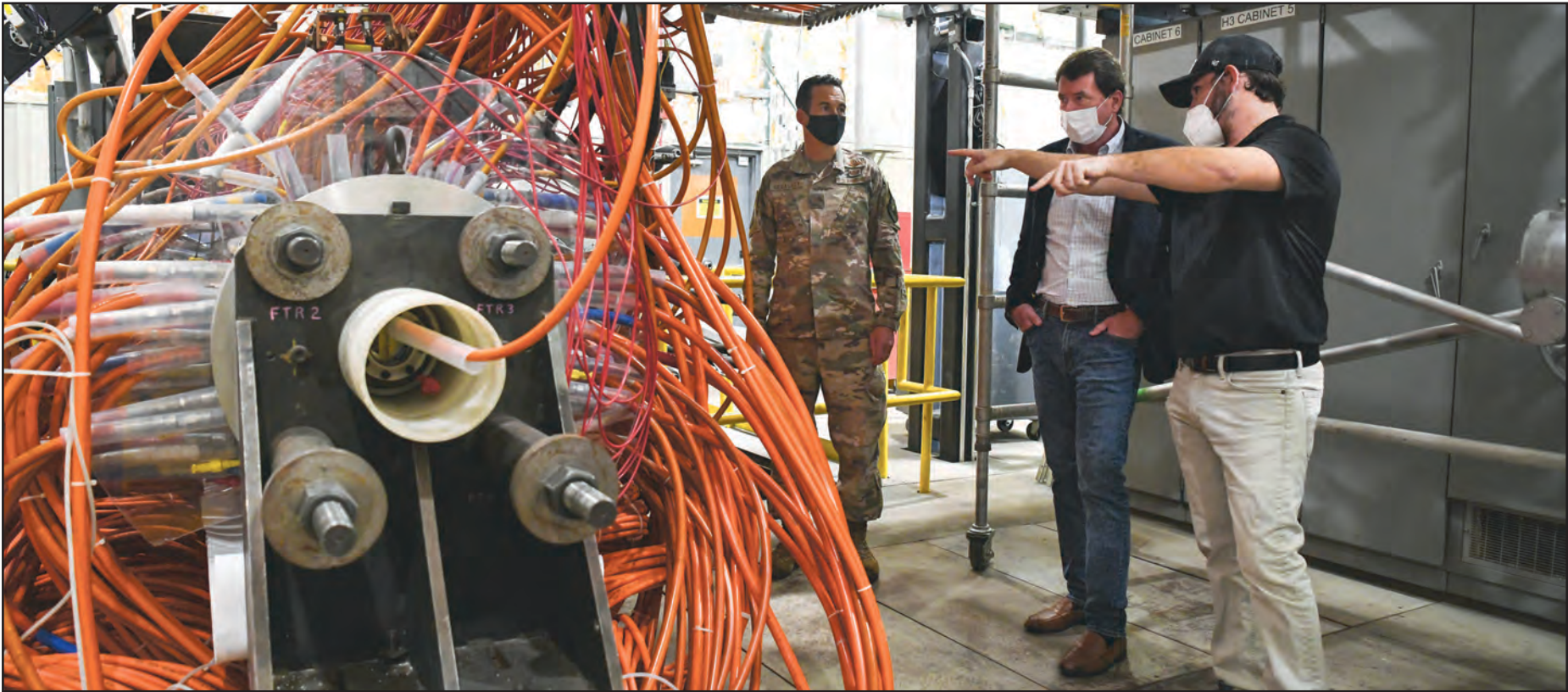
By Daryl Mayer
AFLCMC Public Affairs

WRIGHT-PATTERSON AIR FORCE BASE, Ohio (AFLCMC)– The Air Force Life Cycle Management Center Simulators Division’s Innovation Cell devised a unique and fun way to marry new technologies with old problems with their version of a reality show game. Rather than pitch a single idea for a problem, the cell will bring in multiple prototypes in a means to find the best “match.” They expect this approach in exposing new technologies will help identify opportunities to leverage across the enterprise.

“This year we’ve come up with a new idea, called the Innovation Match Game,” said Margaret Merkle, Chief of Innovation Programs. “[It] has them look at other use cases across the Air Force to see if we can reuse this technology in another space and leverage the investment that the Air Force has made.” The Simulators Division is responsible for delivering training and simulation capabilities to warfighters. They currently manage 2,300 devices across the world that train pilots, aircrews, maintainers, etc. Having the ability to integrate all these systems would offer huge benefits. One example, according to Dylan Greco, Innovation Cell Program Manager, would be using a virtual environment to allow crews to practice loading a Joint Di-

rect Attack Munition on a B-52 without tying up an aircraft or using an actual munition. “It really sets people up, both the users and training units, really well,” he said. “They can spend their time making this training as real as they can.” The cost savings in terms of dollars, time and manpower are substantial. “They’re a great way to immerse somebody in an environment and have that be a safe place to explore and learn those things that don’t tie up an aircraft and don’t tie up a bunch of equipment or a bunch of other people unnecessarily,” Merkle added. “One of the one of the great things about training in the virtual reality headset is that you can repeat things over and over again

until you’re familiar with how things operate and you’re not like tying up a whole classroom of people, while you’re doing that.” The Innovation Cell also recognizes the benefits offered by combining real and virtual assets during training. To hear the full conversation, you can watch Leadership Log on YouTube at <https://youtu.be/UPG701t8mUQ>. You can also listen by searching “Leadership Log” on Apple Podcast, Google Podcast, Spotify, Overcast, Radio Public or Breaker. Units or companies that would like to be involved should reach out to AFLCMC.WNS.Sims_Innovate@us.af.mil for more information. The deadline for applications is Sept. 10.



Sen. Bill Hagerty visits Arnold Air Force Base

John Hile, right, an Arnold Engineering Development Complex (AEDC) test engineer, explains how an arc heater works to Sen. Bill Hagerty of Tennessee during a visit by the senator to the headquarters of AEDC, Arnold Air Force Base, Aug. 23. Arc heaters allow for the testing of thermal protection systems in simulated environments representative of hypersonic flight. Also pictured is Col. Jeffrey Geraghty, commander, AEDC. (U.S. Air Force photo by Jill Pickett)

Around Arnold

September is Suicide Prevention Month

Suicide awareness: What you can do to help

By AEDC Safety

The month brings awareness to a topic we just do not talk about very often. Everyone is affected by suicide, not just the victim. Suicide impacts family and friends long after the loss of a loved one.

The National Alliance on Mental Illness states on their website, “We use this month to reach out to those affected by suicide, raise awareness and connect individuals with suicidal ideation to treatment services. It is also important to ensure that individuals, friends and families have access to the resources they need to discuss suicide prevention. NAMI is here to help.”

Visit www.nami.org/Get-Involved/Awareness-Events/Suicide-Prevention-Awareness-Month for more information.

The CDC tells us that suicide rates increased 33 percent between 1999 and 2019. Good news though, the CDC also tells us from 2019 to 2020 deaths by suicide declined by 5.6 percent, which was the second consecutive year of decline.

COVID-19 became the third leading cause of death in 2020 making suicide drop from tenth to the eleventh leading cause of death. Suicide was responsible for more than 44,834

deaths in 2020, which is about one death every 12 minutes. That includes approximately 18 U.S. Military veterans and more than one active service person every day.

The CDC National Center for Health Statistics reports that the suicide rate typically peaks in the spring and the fall.

As you might expect the number of people who think about or attempt suicide is even higher than those who are successful. In 2019, 12 million American adults seriously thought about suicide, 3.5 million planned a suicide attempt and 1.4 million actually attempted suicide. Annually, more than 374,000 people are treated in emergency departments for self-inflicted injuries. The good news is that more than 90 percent of people who attempt suicide and survive never go on to die by suicide.

The financial toll of suicide on society is another less obvious cost. Suicides and suicide attempts cost the nation over \$70 billion per year in lifetime medical and work-loss costs alone.

People who attempt suicide and survive may experience long-term physical problems in addition to depression and other mental health concerns. Suicide and suicide

attempts affect the health and well-being of friends, loved ones, co-workers and the community. When people die by suicide, their surviving family and friends may experience shock, anger, guilt, symptoms of depression or anxiety, and may even experience thoughts of suicide themselves.

Suicide can be prevented.

The CDC reports, “We saw the number of calls to the national mental health crisis hotline in March 2020 was over 800 percent higher than the year before. People were reaching out and using those services, which is a positive thing and likely made a difference for some.”

It seems that admitting that there’s a problem can, for some, be the toughest part of the battle. The stigma associated with mental health issues, including post-traumatic stress disorder, overtakes the need to ask for help. Instead of reaching out and talking about the problem, people are choosing to end their lives to find relief.

Warning Signs and Actions to Take

The National Council for Behavioral Health provides a list of clues and actions to take to help you tell if someone is feeling suicidal.

Warnings:

- Talking about wanting to die or kill oneself
- Talking, writing, or posting on social media thoughts on death, dying or suicide
- Looking for ways to commit suicide: seeking access to pills, weapons or other means
- Talking about feeling hopeless or having no purpose
- Acting anxious, agitated, with rage or anger, seeking revenge
- Talking about feeling trapped with no way out or being in unbearable pain
- Acting recklessly or engaging in risky activities, seemingly without thinking
- Increasing alcohol or drug use
- Withdrawing from friends, family or society
- Sleeping too much or too little
- Dramatic changes in mood
- Talking about being a burden to others

Actions:

- Evaluate for risk of suicide or harm
- Listen nonjudgmentally
- Give reassurance and information
- Encourage appropriate professional help
- Encourage self-help and other support strategies

If you think they may be considering hurting themselves ask them directly, are you thinking about suicide or hurting yourself?

If the answer is no, keep listening and supporting

If the answer is yes, ask do you have a plan? How – When? Do you have what it takes? If they answer yes to these questions, call 911 get and help immediately.

If you are unsure about what to do or if you worry about someone’s mental state ask them directly or go to Human Resources, your supervisor or a trusted friend. Sometimes there are no clues and we do not know to help. Do not miss an opportunity to help when you do suspect a problem.

Need help? Know someone who does? If you or someone you know needs help, the Veterans

Crisis Hotline is staffed 24 hours a day, seven days a week, at 1-800-273-8255, press 1. Services also are available online at www.veteranscrisisline.net or by text, 838255.

You can also connect 24/7 to a crisis counselor by texting the Crisis Text Line. Text HOME to 741741.

They are free and confidential. You’ll be connected to a skilled, trained counselor in your area.

In Feb. 2020, Gen. Arnold W. Bunch Jr., commander, Air Force Materiel Command, visited Arnold AFB and during the visit he encouraged us to “be deliberate in building relationships and team cohesion to take care of each other.” So as we go about our daily business take the time to look, listen and take care of each other.

If you observe an unsafe action or condition that needs immediate attention (i.e., one that creates immediate danger to life or health), call the AEDC Safety Hotline, 931-454-7233 (S-A-F-E). This number rings in AEDC Safety on weekdays during business hours. The Operations Center answers calls at night, on weekends and after the fourth ring during regular duty hours.

Take care of each other.

Cop Corner: 20th anniversary of the 9/11 attacks

By Dan Hawkins

Arnold AFB Anti-Terrorism Program Manager

September 11 will mark the 20th anniversary of the devastating attacks of Sept. 11, 2001. Many of the documentaries that have aired since the attacks refer to the date as the “day international terrorism struck the homeland,” or something similar. The 9/11 attacks were devastating and changed our culture forever, but they caused many people

to forget the first attack on the World Trade Center.

More than 28 years ago, on Feb 26, 1993, Ramzi Yousef and Eyad Ismoil drove a moving van packed with more than 1,300 pounds of explosives into a parking garage in the basement of the World Trade Center. They detonated a bomb that killed six people and caused extensive damage. Even though it was an earlier example of international terrorism, that attack is largely forgotten because it

was eclipsed by the more recent 9/11 attacks. However, it should be remembered as an example of how patient and calculating our enemy can be. When they didn’t achieve the desired success on their first attack, they waited, watched and planned. It would be over eight and a half years before the next attack.

In the years since the 9/11 attacks, there have been at least 87 thwarted attacks and more than 500 people have been charged with terrorism in

the United States. Americans have become more acclimated to the idea of reporting suspicious activity, thereby creating a more difficult environment for the enemy.

Our enemy has not gone away, and we must anticipate future attacks even if they are years or decades away.

As we mark the somber occasion of the 9/11 anniversary, please continue to report suspicious activities or behaviors. You can report directly to the Air Force Office of Special

Investigations (OSI) using the Eagle Eyes program at 931-454-EYES (3937) or to the OSI Duty Agent at 931-434-4885. You can also contact the Base Defense Operations Center (security dispatch) at 931-454-HELP (4357), and the Anti-Terrorism Office at 931-454-7608.

If you see something, say something.

Please direct any questions or suggestions for future articles to our distribution group: AEDC.Arnold.CopCorner@us.af.mil.

Immunization entwined in Armed Forces history

By Estella Holmes

Air Force Materiel Command Public Affairs

WRIGHT-PATTERSON AIR FORCE BASE, Ohio – National Immunization Awareness Month is an annual observance held in August to emphasize the importance of vaccination to protect the health of people of all ages.

The term immunization is used interchangeably with vaccination, although they are not one in the same. The act of receiving a vaccine into the body produces immunity.

The history of vaccinations in the U.S. portrays an extended effort to leverage research and technology to protect Americans by lowering health risks.

Early inoculations began with tests to protect against smallpox in 1796, followed by the next routinely recommended vaccines that protect against pertussis (1914), diphtheria (1926) and tetanus (1938), according to the Immunization Advisory Center webpage.

George Washington, commander in chief of the Continental Army, prompted by smallpox, is credited for man-

dating the first military vaccinations of troops in 1777, according to the Military Health System website.

Today, a large percentage of the American population receive vaccinations as children for protection from a specific list of communicable childhood diseases. Measles, mumps, chicken pox and other vaccines are commonly administered during the early years of a child’s life and are credited with providing disease-free, healthful benefits.

Measles complications could include pneumonia, croup, acute brain inflammation/encephalitis, and corneal ulceration, which could lead to corneal scarring. The goal of vaccinations is to prevent life-altering complications.

Military members receive vaccines when they enter basic training and before deployment to locations outside the U.S. to help protect them from infection.

According to the Military Health System, there are currently several vaccines that are required including polio, the influenza, Measles-Mumps-Rubella, hepatitis A and chickenpox. Additions to the inoculation list of required vaccinations can be made in order to protect military forces against threats both new and old



National Immunization Awareness Month is a reminder that throughout history vaccination has been employed as another weapon to keep military members safe.

specific to their environment based on the potential of exposure to diseases like that posed by the COVID-19 and related variants.

National Immunization Awareness

Month serves as a reminder that throughout history, vaccination has been employed as another weapon to keep military members safe in the hostile environment posed by disease.

Rapid Dragon conducts first system-level demonstration of palletized munitions

By Dean R. Evans, Ph.D.
Air Force Strategic Development Planning and Experimentation Office

EGLIN AIR FORCE BASE, Fla. (AFRL) – The Air Force Rapid Dragon Program, a fast-paced experimentation campaign led by the Air Force Strategic Development Planning and Experimentation office, completed two more successful demonstrations during its first system-level flight tests of this potential new capability at White Sands Missile Range, New Mexico, in July 2021.

The tests assessed the operational utility of palletized delivery of long-range strike weapons from military cargo aircraft, and showcased the ability for a Beyond-Line-of-Sight Command and Control node to transfer Joint Air-to-Surface Standoff Missile-Extended Range cruise missile targeting data to airborne Air Force Special Operations Command and Air Mobility Command aircraft.

The SDPE office, along with its partners, Air Force Futures, Air Force Special Operations Command, Air Mobility Command, U.S. Special Operations Command Det 1, and the 412th Test Wing, completed its first system-level flight test on EC-130SJ and C-17A aircraft.

The aircraft-agnostic Battle Management System onboard the aircraft received new targeting data and uploaded it to a JASSM-ER emulator. The JASSM-ER emulator successfully demonstrated the ability to retarget missiles while the aircraft was airborne. This set in motion the airdrop of the palletized weapon deployment system from each aircraft. While stabilized and descending under-chute, this new deployment system sequentially released multiple JASSM-ER mass simulants and demon-

strated the ability to safely de-conflict the airspace between weapon release intervals. This capability can provide combatant commanders greater flexibility to respond in dynamic operational environments.

These jettison tests accomplished several first-time events: a successful high altitude airdrop using a modular deployment box; a successful jettison of multiple weapons from the palletized weapon deployment system; and weapon de-confliction verification through the clean separation of JASSM-ER simulants from the deployment system.

An operational aircrew from the 492 Special Operations Training Group Detachment 2 and a test aircrew from the 418th Flight Test Squadron conducted the airdrops in an operationally-relevant environment, demonstrating the feasibility of a palletized delivery of long-range strike weapons. The Naval Surface Warfare Center-Dahlgren; Standoff Munitions Application Center; Lockheed Martin Missiles and Fire Control; Systema Technologies; Safran Electronics & Defense, Parachutes USA; and R4 Integration, Inc. were integral to the success of this first-ever, end-to-end, system-level demonstration.

The Rapid Dragon Program will complete a live-fire test with a production JASSM-ER from a cargo aircraft before the end of 2021. These tests will inform potential design refinement and accelerate the maturation of these systems for further capability experimentation and rapid fielding. A follow-on program will look at expanding the Rapid Dragon portfolio to include additional weapon systems and multiple effects capabilities.

Rapid Dragon could ultimately lead to a roll-on, roll-



Once the Palletized Munition Deployment System was stabilized under the parachutes, JASSM simulants were released sequentially, timed for safe separation between munitions. (Courtesy photo)



Once the Palletized Munition Deployment System was stabilized under the parachutes, JASSM simulants were released sequentially, timed for safe separation between munitions. (Courtesy photo)

off system that transforms mobility aircraft into lethal strike platforms that augment the strike capacity of tactical fighters and strategic bombers. The retargeting methodology used is transferrable to other strike and cargo platforms, potentially increasing lethality of all JASSM-capable strike assets. These new capabilities can provide com-

batant commanders additional flexibility to prosecute targets en-masse in the high-end fight, thus changing the adversary’s calculus in an increasingly complicated and dynamic near-peer conflict.

SDPE’s Rapid Dragon Program is progressing from concept to powered-flight within 24 months. From a modular deployment box design to a

flight test in only 10 months, this nontraditional acquisition program continues to take risks and push the developmental envelope, accelerating change to deliver operationally-relevant capabilities for the Future Force. These recent tests were supported both operationally and logistically in many ways by organizations from across the Air Force.

AFIMSC expands eLearning platform to Total Force

By Malcolm McClendon
Air Force Installation and Mission Support Center

JOINT BASE SAN ANTONIO-LACKLAND, Texas – The Air Force Installation and Mission Support Center Directorate of Personnel team relaunched the RedVector eLearning platform recently, making it accessible to more Airmen and Guardians to provide broader support for job-mandated training requirements, professional credentialing and licensing.

RedVector offers close to 2,000 courses for professional skill development, continuous learning point credits, and continuing education and professional development units.

For those in the Installation and Mission Support community, it provides certifications for topics in the areas of National Fire Protection Association, Occupational Safety and Health Administration, Americans with Disabilities Act, Resource Conservation and Recovery Act, Environmental and Energy, Building and Design Codes, Project Management, Facilities, Contractor, Engineering, Architect, and HVAC.

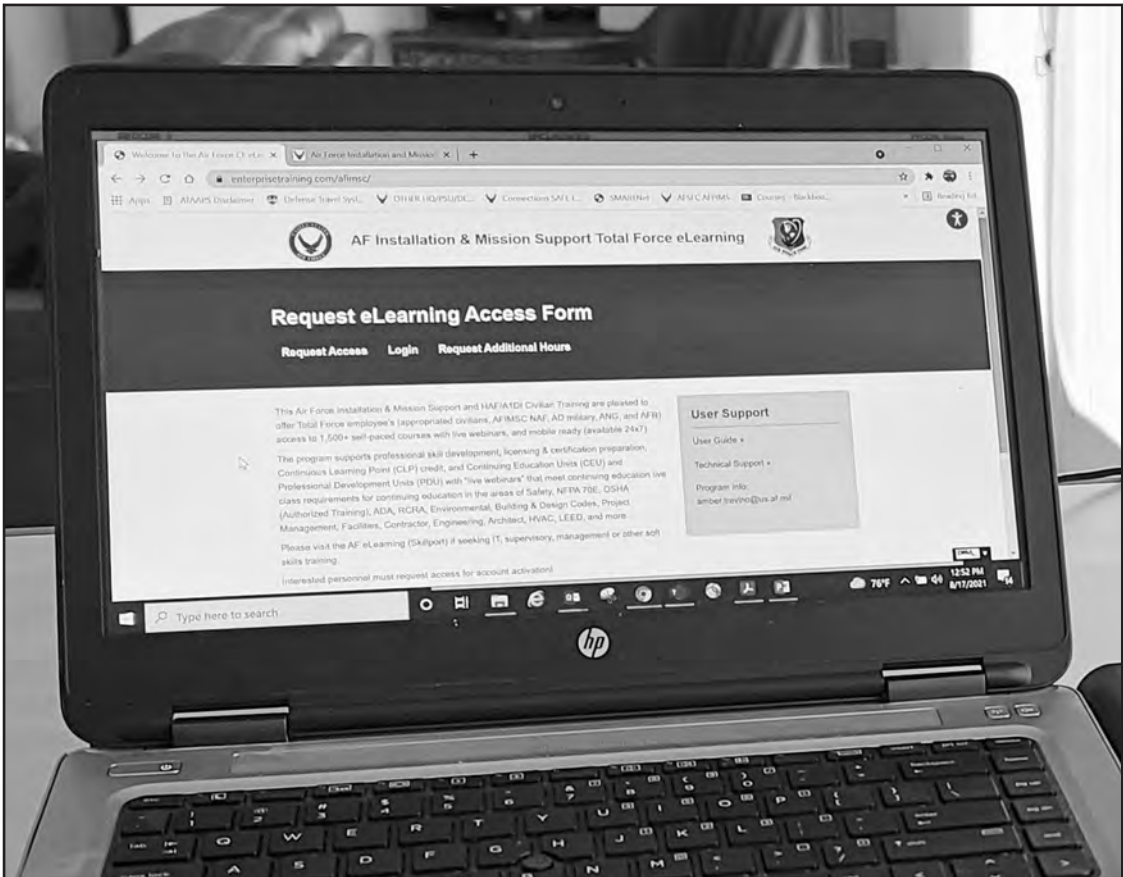
“We continuously seek new options that enable us to further develop our installa-

tion and mission support professionals,” Robert Jackson, AFIMSC Personnel Director said. “We’ve seen the success this platform had in a limited capacity, specifically with civil engineers and now we’re making it available to the broader audience as we continue to pursue organizational excellence enterprise wide.”

The Air Force Civil Engineer Center originally tested the platform in 2012 for 20 students at Tyndall Air Force Base, Florida. After the initial pilot, AFCEC continued to grow the program until 2017, when AFIMSC consolidated all training programs under the Workforce Development Division.

Félix Colón, program manager, recognized RedVector’s potential and introduced it to Headquarters Air Force Directorate of Force Development to maximize its capability and to close an Air Force-wide training funding gap.

“Every year we are required to do an annual training needs assessment and I saw an opportunity to expand this to a larger audience,” Colón said. “I brought the idea to Vice Chief of Staff of the Air Force as part of his Challenge Program, and he liked it. So AFIMSC and HAF (Directorate of Force Development) partnered under a new contract



The Air Force Installation and Mission Support Center Directorate of Personnel team relaunched the RedVector eLearning platform recently, making it accessible to more Airmen and Guardians to provide broader support for job-mandated training requirements, professional credentialing and licensing. (U.S. Air Force photo by Malcolm McClendon)

to further fund the program and make this a real Total Force training initiative.”

Since its relaunch in April, RedVector has proven its value and provided costs savings to the Air Force. The average travel and per diem cost for students to attend training is \$4,700 per course, not including tuition. By offering

the same courses online, RedVector saved the Air Force \$6.4 million in 2020 and another \$1.9 million since April, Colón added.

“With tools like RedVector, we are optimizing training opportunities to increase lethality, readiness and organizational knowledge across the Total Force,” he said.

To register for RedVector and view courses offered, visit: <https://afcec.redvector.com/lpe/course/search/b2b>.

Program managers ask enrollees to use work email when registering and to allow one week for confirmation. For any other questions regarding the platform please contact: AFIMSC.DPD@us.af.mil.

Centralized hiring process to drive diversity, speed in recruitment efforts

By Marisa Alia-Novobilski
Air Force Materiel Command

WRIGHT-PATTERSON AIR FORCE BASE, Ohio – The Air Force Materiel Command has refined an existing centralized selection and hiring process to ensure it hires the right people to fill critical, entry-level developmental positions across the enterprise, faster and more efficiently.

“We should always seek the most qualified person when hiring. However, unconscious biases may exclude highly qualified people from competing. Centralized hiring for entry-level positions is one way AFMC plans to reduce unconscious bias and ensure our hiring process promotes diversity. It will also allow us to hire into critical positions faster,” said Bill Snodgrass, AFMC Director of Manpower, Personnel and Services.

The Centralized Selection and Hiring Process will leverage Centralized Selection Cells (CSCs) within each AFMC Center to manage recruitment efforts for developmental positions where organizations have the authority to appoint qualified candidates directly into critical, hard-to-fill positions. Developmental positions are designed to train or develop employees in preparation for further career advancement.

AFMC Center CSCs will identify vacancies, post job opportunity announcements, review resumes, conduct interviews, make selections, and more. The CSCs will also track hiring metrics, to include timelines, turnover rates, and new hire demographics, which will be reported to the AFMC headquarters team on a routine basis.

“We want to reduce any chances of favoritism or bias in the hiring process by placing the responsibility for recruitment in the hands of trained human re-



Candidates speak with recruiters during a 2019 Civilian Hiring Fair. The Air Force Materiel Command has refined an existing centralized selection and hiring process to ensure it hires the right people to fill critical, entry-level developmental positions across the enterprise, faster and more efficiently. (Courtesy Photo)

sources specialists and functional experts that understand the demands of the position. The CSCs will work closely with supervisors to identify vacancies and the recruitment criteria; however, the supervisors will not be involved with candidate selection or hiring,” said Tammy Lyons, Chief, AFMC Personnel Support Division.

AFMC began piloting the CSC concept in August 2018 in the contracting and logistics career fields. In order to continue building a diverse and inclusive workforce, the CSC process will expand to include recruitment for all career fields across the command.

Approximately 2,000 devel-

opmental positions will be filled annually through the expanded concept, dependent on local vacancies. These positions will include those covered by non-competitive hiring authorities; non-government service (GS) positions such as Federal Wage System and Defense Civilian Intelligence Personnel System (DCIPS); and positions within a broadband pay scale, such as AcqDemo and the Air Force Research Laboratory’s Broadband-1. Exceptions to the positions covered must be approved by the AFMC headquarters personnel team.

To assist in the implementation of the expanded process, AFMC has developed a Central-

ized Selection Process Guide outlining roles, responsibilities and positions covered by the policy. The guidance also provides tools to assist the centralized selection teams in the development of hiring and interview panels, sample reference and interview questions, scoring matrices and tips for providing candidates feedback. Each AFMC center will develop their own implementation instructions based on the specific needs of the organization.

“We want to make sure our human resources teams understand the process and have the tools they need to implement it consistently across the command,” said Lyons. “Our headquarters personnel team is available to assist

throughout the process.”

The Centralized Selection and Hiring Process is one of a number of ongoing initiatives within AFMC to better address diversity and inclusion while improving hiring timelines across the command. The goal is to enable greater diversity in entry-level and developmental positions, ensuring a more diverse workforce for the command as it moves into the future.

“AFMC continues to lead the Air Force in this area. Building a more diverse and inclusive workforce is key to our efforts to evolve into the AFMC our Air and Space Forces need for the future,” said Gen. Arnold W. Bunch, Jr., AFMC Commander.

AFRL extends capability for testing solid rocket motors with new equipment

By Joy Alich
Air Force Research Laboratory Public Affairs

EDWARDS AIR FORCE BASE, Calif. (AFRL) – The Air Force Research Laboratory’s Rocket Propulsion Division has a new capability, a Split-Hopkinson Pressure Bar system, also known as a Kolsky bar, that measures stress at high strain rates and helps analyze material behavior under severe conditions.

“This system will give AFRL a new and unprecedented capability to test and gather data from any solid propellant we can manufacture,” said Dr. Timothy Miller, senior materials research engineer within AFRL’s Propellant Branch. “This new equipment capability will continue to propel AFRL into the future,” he said.

Installed in AFRL’s on-site chemistry lab, the system tests solid propellant at strain rates that correspond to threats from bullet impact, fragment impact and sympathetic detonations. The latter occur when unwanted detonation of a missile issues a shock wave that initiates detonation in a

nearby missile.

“AFRL plans to use the system to test both propellant and space-bound materials at high-strain rates so that structural models can be developed that will predict behavior, especially failure, in real-world conditions,” said Miller.

Ultimately, these models will aid in designing improved rocket motors and satellites. This new capability will also help AFRL to investigate other occurrences such as space debris impact, which can disable satellites, and in some cases, can compromise structures and render them useless.

Miller explained how “every solid rocket motor tested has the potential for defects that cannot be seen during manufacturing, and even in the absence of defects, can be susceptible to damage due to external events.”

“Data from high strain rate tests is key to preventing [unintentional damage] and AFRL will use this system to quantify material properties related to all rocket motors, including those made with advanced manufacturing processes such as Resodyn mixing and additive manufacturing,” he said.



AFRL’s new equipment, a Split-Hopkinson Pressure Bar system, measures stress at high strain rates and helps analyze material behavior under severe conditions. Engineers from AFRL’s Rocket Propulsion Division at Edwards Air Force Base, California will use the system to test and gather data from solid propellants and space-bound materials. (U.S. Air Force photo by Joy Alich)

Arnold AFB Milestones



Charles Mangino, TOS
40 years



Raymond Schlegel, AF
40 years

40 YEARS

Charles Mangino, TOS
Raymond Schlegel, AF

35 YEARS

Richard Cox, TOS
Bill Rose, TMAS

30 YEARS

William Gonce, AF

25 YEARS

Aaron McAdams, FSS

15 YEARS

Rickey Bruce, TOS
Michael Wilson, TOS

10 YEARS

Marcus Conner, AF
Milton West, AF

5 YEARS

Kelly Loudermilk, TOS

INBOUND MILITARY

Chief Master Sgt. Jennifer
Cirricione, AF

RETIREMENTS

William Baker, AF
Robert Brim, TOS
Mark Duke, TOS
Mark Echols, AF
Dennis Eggert, FSS
Rita Perry, TOS
Deborah Trice, AF

NEW HIRES

Roscoe Beitel, TOS

Sydney Bogard, TOS
Jose Cabrales, TOS
Jeffrey Chasteen, TOS
Robert Croyle, TOS
Timothy Frazier, TMAS
Brandon Gallagher, TOS
Luke Haverkamp, TOS
Kimberly Henegar, AF
Stephen Iocona, TOS
Samuel Johns, TOS
Brendan Kearney, AF
Robert Kirby, TOS
Thomas Knies, TMAS
Kimberly Loudermilk, TOS
Brandon Mariano, TOS
Alexander Mayes, TOS
Russ Meeks, FSS
Cynthia Motroni, AF
Michael Nolan, TOS
Julia Olson, TOS
Oladapo Omitowoju, TOS
Patrick Parker, TOS
Christopher Parris, TOS
Christopher Phillips, TOS
Daniel Reissner, TOS
Elvy Rorie, AF
Darbie Sizemore, AF
Christopher Taylor, TOS
Steve Trail, TOS
Jason Troyer, TOS
Jimmy Walker, TOS
Samuel Wright, TMAS

PROMOTIONS

Michael Hareld Jr., SF,
promoted to first lieutenant

Kodjovi Klikan, AF, promoted
to first lieutenant



Klikan promoted to first lieutenant

Lt. Col. Dayvid Prah, chief of the Arnold Engineering Development Complex Space Test Branch, right, administers the oath of office to newly-promoted 1st Lt. Kodjovi Klikan during an Aug. 6 promotion ceremony at Arnold Air Force Base. (U.S. Air Force photo by Bradley Hicks)

SAFETY ALWAYS

PPE

Personal Protective Equipment

Whatever Your Job
Wear The Correct Size Of PPE

The Green Scene

brought to you by Services Recycling Program



Please Help Us Recycle

Break down
cardboard boxes
to save space
and check for items
left inside



Ensure only
#1 & #2
plastic bottles
are placed
in plastic bins



And...
make sure
they are
empty
and lids
removed



Thank You from The Green Team
Eric Hopp (manager), Bud Schell, Jake Jordan
931-454-6068

Please Recycle

2021

september

AIR FORCE

SERVICES

Most activities are returning to full normal operations. Some restrictions still apply.

[Admin](#)
454-7779 M-F 7:30am-4pm
Closed federal holidays
[Arnold Lakeside Center \(ALC\)](#)
454-3350
Dining Thu & Fri 5-8pm
Bar Thu 5-9pm
Fri 3:30-10pm
[Café 100](#)
454-5885 Watch for reopening coming soon
Closed federal holidays
[Fitness Center](#)
454-6440
M-F 5am-7:30pm
Sa 8am-1pm
Closed federal holidays
[Golf Course 454-GOLF](#)
Daily 7am-dusk
[Marketing/Sponsorship](#)
454-3128 M-F 7:30am-4pm
Closed federal holidays
[Mulligan's Grill 454-FOOD](#)
Sa-Su 7am-1pm
[Outdoor Rec/ITT 454-6084](#)
M,T,Th,F 10am-5pm
Sa 8am-6pm
SEP: M, T, Th, F, Sa 10am-5pm
Open Sep 5 10am-6pm
Closed Sep 6
[Recycling 454-6068](#)
M-F 6:30am-3pm
Closed federal holidays
[Wingo Inn 454-3051](#)
M-F 7am-6pm
Sa-Su & holidays 8am-4pm
[Food Trucks on main base](#)
M-F 10am-1pm

Coming to Arnold Golf Course
Oct 9-10
Sign up by Oct 8 454-GOLF
INVITATIONAL \$60 *green fee & cart extra*

Buffalo Chicken Pizza

\$15.95

\$14.95 members

1 dog & 1 side \$5/\$4mbr

2 dogs & 1 side \$7/\$6mbr

Hot Dog Basket

Add Chili \$1

ALC September Specials

Thursdays & Fridays 5-8pm

The Buffalo Chicken Pizza, 14" with fajita chicken, hot buffalo sauce, onions, & mozzarella on a tomato base pipping hot and fresh out of the oven!

LTO (limited time offer): Hot Dog Basket
1 hot dog & 1 side for \$5 or 2 hot dogs & 1 side for \$7.
Add Chili for just \$1 more. Members receive \$1 off.

3

ALC Closed

No Open Mic this month

Sorry for any inconvenience

4-5

Arnold Golf Course

FALL OPEN

two-day event 8 am

\$60

green fee & cart extra

Sign up by Sep 3

454-GOLF

Sunday 5

ODR OPEN

10am-6pm

6 Monday

ODR & Fitness Center

CLOSED

9

Build Your Own Sampler

ALC

Choose 3 appetizers

\$12

5-8pm

\$10 mbrs

10

Rocktoberfest

ALC

sponsored by Tullahoma Area Chamber of Commerce and Dream Tullahoma

Live Band "Status Zone" 5-9pm

Contests: Top Brew & Brat Eating
Call for details, sign up by Sep 1 for these contests

Also: Best Dressed, Door Prizes, Photo Props, Kids' Activities

German Menu 5-8pm
\$12 / \$10mbr

age 6-12 \$8 / \$6 mbr

454-3350

HAPPY BIRTHDAY

Air Force Sep 10

Activities subject to change based on current CDC guidelines and social distancing restrictions. Mask requirements follow latest CDC guidelines.

16

ALC

TRIVIA NIGHT

Sign up 5-6pm 6pm

Min 3 teams for \$25 Services Gift Card winner

17

ALC

Family Karaoke

5-8pm all ages

Dinner special:
2 slices of pizza with canned soda \$5 / \$4mbr

18

Outdoor Rec

Age 18+ Max 250lbs

9am Bring lunch or snack

Sky Diving \$65

active duty

Sign up by Sep 4 454-6084

22

FALL FUN RUN

2 laps on trail on your honor between 5am-7:30pm

1st 50 to sign up and complete get t-shirt

454-6440

FC Fun Run sponsored by TVA

23

Build Your Own Sampler

ALC

Choose 3 appetizers

\$12

5-8pm

\$10 mbrs

24

KIDS

ALC

Craft Night

plus free movie 5:30pm

5-8pm

25

FLEA MARKET

10am-3pm \$5 per table

Sign up by Sep 17 454-3350

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Services is hiring!

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Plastic and Composite Shop sustains aircraft mission readiness

By Joseph Mather
Robins Public Affairs

ROBINS AIR FORCE BASE, Ga. – Many do not realize Air Force aircraft have a variety of composite, plastic and fiberglass parts that need to be maintained or replaced from time to time.

The 573rd Maintenance Squadron Plastic and Composite Shop, part of the Warner Robins Air Logistics Complex at Robins Air Force Base, Georgia, ensures those assets and parts are available for the Air Force’s sustainment mission.

Luke Rowland, Plastic and Composite Shop supervisor, said his team provides maintenance support to major weapon systems through major repair, manufacturing, as well as component and special process repair.

“The mechanics in this shop have extensive knowledge of the characteristics and properties of a variety of advanced composite materials, adhesives and honeycomb core,” he said.

The plastic and composite workers take this knowledge and apply those skill to the programmed depot maintenance process.

“We do minor and major repair and overhaul on all radomes, C-130 aircraft spinners, trailing edges and other miscellaneous parts,” he said. “Anything that has to do with fiberglass, composite or plastic, this team can do it.”

The plastic shop repairs, modifies, and fabricates many types of components and assemblies by using advanced composite materials, such as pre-impregnated poly-quartz cloth, pre-impregnated fiberglass cloth, and carbon composite materials.

“Mechanics here have the ability to examine aircraft composite and structures to locate delamination, cracks, breaks, holes, bulges and dents,” said



Dominko Anderson, 573rd Maintenance Support Squadron Plastics and Composite mechanic, applies filler putty to pin holes on a primed F-15 aircraft radome at Robins Air Force Base, Georgia, Aug. 12. The red primer makes pinholes and fisheyes more visible to the mechanic and allows the worker to fill the defects in with putty. (U.S. Air Force photo by Joseph Mather)

Rowland. “Once they determine the type and extent of repairs needed to restore original strength, the mechanic can make repairs by manufacturing and repairing new parts.”

Rowland said the mechanics can make repairs using a variety of techniques, such as reinforcing, patching, or replacing defective parts, as well as applying film adhesives and sealants.

“We can also form and shape a variety of advanced structural core materials,” he said. “Our plastic and composite workers do this with materials such as structural core panels, aluminum honeycomb core, phenolic honeycomb core and can work them into multiple contours or irregular curves and planes to conform to inner and outer skin surfaces.”

Rowland said the shop repairs and overhauls more than 100 radomes annually.

“A majority of the radomes we work on are F-15 and C-130 aircraft radomes,” he said. “We also average repairing more than 200 C-130 aircraft assets including spinners, afterbodies and brackets, along with other routed and maintenance items sub-

ject to repair assets.”

The plastic and composite mechanics work must to be accurate, said Rowland.

“The precision that goes into these radomes and other assets has to be spot on in order for aircraft to be able to do what they need to do,” he said. “It’s up to us to make sure that aircraft gets a good quality, serviceable asset, so we take extra pride in what we do to be able to support the war-fighting mission.”

Rowland said a robotic system is being installed in the Plastics and Composite Shop.

“The robotic arm will be capable of sanding, locating damage, and removing damage for aircraft radomes,” he said. “Robins is investing in the future of this shop and the capabilities that these robots have will make us more efficient with our day-to-day processes, and hopefully bring in more workload.”

Rowland said his shop’s mechanics are extraordinary.

“We are the only team on Robins that does what we do,” he said. “This team is production-focused and each person in this shop is crucial to our overall mission.”



David Robinson, 573rd Maintenance Support Squadron Plastics and Composite mechanic, sands an F-15 aircraft radome at Robins Air Force Base, Georgia, Aug. 12. The mechanic sanded off the seal coat and filler putty to make the radome smooth and ready to have primer applied. (U.S. Air Force photo by Joseph Mather)

